IN THE CLAIMS

Please cancel claim 2 without prejudice or disclaimer, amend claims 1, 3, 12, 13, and 14, and add new claims 15 to 28, as follows:

1. (Currently amended) A mobile terminal apparatus comprising:

a transmission unit;

a reception unit for receiving signals which are transmitted from a plurality of signal generating sources; and

a positioning unit for performing a position detecting operation by way of a positioning method based upon propagation delay time of said received signals, wherein:

said mobile terminal apparatus performs said position detecting operation for a requested service which uses a detected position;

accuracy of said position detecting operation by said positioning unit is ~~variably set~~ variable;

said accuracy of said position detecting operation is set according to a predetermined correspondence between accuracy requirement and a kind of a requested service; and

said positioning unit executes the position detecting operation by way of a positioning method in accordance with said set accuracy.

2. (Canceled)

3. (Currently amended) A mobile terminal apparatus as claimed in claim [[2]] 1 wherein:

said transmission unit transmits a request [[of]] for providing said position detecting operation ~~service~~ to a service provider's server;

said positioning unit executes the position detecting operation in response to an instruction issued from said ~~service provider's~~ server, which is received by said reception unit;

said transmission unit transmits [[the]] a result of said position detecting operation to said ~~service provider's~~ server; and

said reception unit receives information related to said requested service from said ~~service provider's~~ server.

4. (Original) A mobile terminal apparatus as claimed in claim 1 wherein:

said positioning unit includes a propagation delay amount measurement unit for measuring propagation delay of said plurality of received signals;

information used to determine said positioning method contains a total number of the signal generating sources which are used to perform the position detecting operation; and

said propagation delay measurement unit measures propagation delay of received signals, the total number of which is equal to a total number of said signal generating sources which are used to execute said position detecting operation.

5. (Original) A mobile terminal apparatus as claimed in claim 1 wherein:

said positioning unit includes a propagation delay measurement unit for measuring propagation delay of said plurality of received signals;

information used to determine said positioning method contains information related to a time duration used to measure the signals which are transmitted from said plurality of signal generating sources; and

said propagation delay measurement unit measures propagation delay of the signals transmitted from said plurality of signal generating sources for a time period corresponding to said time duration.

6. (Original) A mobile terminal apparatus as claimed in claim 1 wherein:

said positioning unit includes a position calculation unit for executing a position calculating operation by employing propagation delay time of said received signals;

information used to determine said positioning method contains a total number of predicted positions;

said position calculation unit calculates the predicted positions, the total number of which is equal to said total number contained in the information used to determine the positioning method, by employing the signals transmitted form said plurality of signal generating sources; and

said position calculation unit performs the position calculating operation by employing said plurality of predicted positions.

7. (Original) A mobile terminal apparatus as claimed in claim 1 wherein:

information used to determine said positioning method contains criteria for judging a completion of a position calculating operation; and

said positioning unit judges as to whether or not said position detecting operation is continuously carried out by checking as to whether or not said position calculating completion criteria can be satisfied.

8. (Original) A mobile terminal apparatus as claimed in claim 1 wherein:

said mobile terminal apparatus displays the result of said position detecting operation on a map; and

accuracy of said position detecting operation is set in response to a reduced scale of said map.

9. (Original) A mobile terminal apparatus as claimed in claim 1 wherein:

in the case that an instruction of the position detecting operation is inputted, said positioning unit judges as to whether or not the position detecting operation is again carried out in accordance with a past position detecting operation;

when the position detecting operation need to be again carried out, the positioning unit performs the position detecting operation; and

when the position detecting operation need not to be again carried out, the positioning unit substitutes the result of said past position detecting operation for a result of a position detecting operation in response to said instruction of the position detecting operation.

10. (Original) A mobile terminal apparatus as claimed in claim 1 wherein:

said positioning method is set in accordance with a condition of said mobile terminal apparatus.

11. (Original) A mobile terminal apparatus as claimed in claim 1 wherein:

said mobile terminal apparatus includes a table which describes a correspondence relationship between the accuracy of said position detecting operations and the information used to determine said positioning methods, and

determines a positioning method based upon notified accuracy of the position detecting operation.

12. (Currently amended) A ~~service provider's~~ server apparatus for providing plural sorts of services by using information related to a position of a detected mobile terminal, wherein:

said ~~service provider's~~ server apparatus is comprised of a table which describes a correspondence relationship between said plural sorts of services and said accuracy of the position detecting operations;

in the case that a request of providing a service is received, said ~~service provider's~~ server apparatus retrieves accuracy of a position detecting operation corresponding to said requested services from said table;

said ~~service provider's~~ server apparatus transmits such an instruction for performing the position detecting operation in said retrieved accuracy to said mobile terminal;

said ~~service provider's~~ server apparatus receives the result of said position detecting operation; and

said ~~service provider's~~ server apparatus generates service information related to said required service based upon the result of said position detecting operation and outputs said generated service information.

13. (Currently amended) A ~~service provider's~~ server apparatus as claimed in claim 12 wherein:

the accuracy of the position detecting operation of said table is described as any one of a total number of signal generating sources used to perform the position detecting operation, a time duration used to measure the signals transmitted from said plurality of signal generating sources, a total number of predicted positions to be utilized, and position calculation completion criteria; and

said predicted positions correspond to a plurality of positions which are calculated by employing the signals transmitted from said plurality of signal generating sources, and are utilized so as to perform the position detecting operation based upon said plurality of predicted positions.

14. (Currently amended) A service providing method for providing plural sorts of services by utilizing information related to a position of a detected mobile terminal, comprising:

a step for receiving a request [[of]] for providing a service ~~so as to set~~ and setting accuracy of detecting the position of said mobile terminal in response to said ~~requested~~ service request, according to a predetermined correspondence between accuracy requirement and a sort of a requested service;

a step for transmitting such an instruction for performing the position detecting operation in said set accuracy to said mobile terminal;

a step for receiving the result of said position detecting operation; and

a step for generating service information related to said required service based upon the result of said position detecting operation and for outputting said generated service information.

15. (New) A mobile terminal apparatus as claimed in claim 1 wherein:

said positioning unit includes a position calculation unit for executing a position calculating operation by employing propagation delay time and said received signals;

information used to determine said positioning method contains a total number of predicted positions, each of said predicted positions being calculated from said plurality of received signals;

said position calculation unit calculates the predicted positions, the total number of which is equal to said total number contained in the information used to determine the positioning method, by employing the signals transmitted from said plurality of signal generating sources; and

said position calculation unit performs the position calculating operation by employing said plurality of predicted positions, said plurality of predicted positions being averaged for performing the position calculating operation.

16. (New) A server apparatus as claimed in claim 12 wherein:

the accuracy of the position detecting operation of said table is described as any one of a total number of signal generating sources used to perform the position detecting operation, a time duration used to measure the signals transmitted from said

plurality of signal generating sources, a total number of predicted positions to be utilized, and position calculation completion criteria; and

said predicted positions correspond to a plurality of positions which are calculated by employing the signals transmitted from said plurality of signal generating sources, and are averaged and utilized so as to perform the position detecting operation based upon said plurality of predicted positions.

17. (New) A mobile terminal apparatus comprising:

a transmission unit for transmitting a first signal, to a server, including a request for a service to be provided from the server;

a reception unit for receiving a second signal from the server including an instruction to detect a position of the mobile terminal apparatus with an accuracy which is to be determined according to the requested service, a plurality of sets of relationship between a service and an accuracy corresponding thereto having been recorded within the server in advance;

a positioning unit for detecting the position of the mobile terminal apparatus in response to the second signal, the detecting operation being performed by way of both reception of a plurality of measurement signals, at the reception unit, sent from the corresponding signal sources and a calculation of the position of the mobile terminal apparatus based upon propagation delay time among the received measurement signals;

wherein the mobile terminal apparatus transmits a third signal, to the server, including an information on the position thereof calculated by the positioning unit, and receives a fourth signal, from the server, including another information on the requested service with the corresponding accuracy, the information on the service including the position of the mobile terminal apparatus calculated by the positioning unit.

18. (New) A mobile terminal apparatus as claimed in claim 17 wherein:

the positioning unit includes a propagation delay amount measurement unit for measuring propagation delay of the plurality of measurement signals received;

information used to determine the position of the mobile terminal apparatus contains a total. number of the signal sources which are user to determine the position of the mobile terminal apparatus; and

the propagation delay measurement unit measures propagation delay of the measurement signals received, the total number of which is equal to a total number of the signal sources which are used to determine the position.

19. (New) A mobile terminal apparatus as claimed in claim 17 wherein:

the positioning unit includes a propagation delay measurement unit for measuring propagation delay of the plurality of measurement signals received;

information used to determine the positioning of the mobile terminal apparatus contains information related to a time duration used to measure the signals which are transmitted from the plurality of signal sources; and

the propagation delay measurement unit measures propagation delay of the signal transmitted from the plurality of signal sources for a time period corresponding to the time duration.

20. (New) A mobile terminal apparatus as claimed in claim 17 wherein:

the positioning unit includes a position calculation unit for executing a position calculating operation by employing propagation delay time of the measurement signals received;

information used to determine the position of the mobile terminal apparatus contains a total number of predicted positions, each of the predicted positions being calculated from the plurality of received signals;

said position calculation unit calculates the predicted positions, the total number of which is equal to the total number contained in the information used to determine the position of the mobile terminal apparatus, by employing the signals transmitted from the plurality of signal sources; and the position calculation unit performs the position calculating operation by employing the plurality of predicted positions, the plurality of predicted positions being averaged for performing the position calculating operation,

21. (New) A mobile terminal apparatus as claimed in claim 20 wherein:

information used to determine the position of the mobile terminal apparatus contains criteria for judging a completion of the position calculating operation; and

the positioning unit judges as to whether or not the position calculating operation is to be continuously carried out by checking as to whether or not the position calculating completion criteria can be satisfied.

22. (New) A mobile terminal apparatus as claimed in claim 17 wherein:

the mobile terminal apparatus displays a result of the position detecting operation on a map; and

accuracy of the position detecting operation is set in response to a reduced scale of the map.

23. (New) A mobile terminal apparatus as claimed in claim 17 wherein:

in the case that an instruction of the position detecting operation is inputted, the position detecting unit judges as to whether or not the position detecting operation is again to be carried our in accordance with a past position detecting operation;

when the position detecting operation needs to be again carried out, the positioning unit performs the position detecting operation; and

when the position detecting operation needs not to be again carried out, the positioning unit substitutes the result of the past position detecting operation for a result of the position detecting operation in response to the instruction of the position detecting operation.

24. (New) A mobile terminal apparatus as claimed in claim 17 wherein:

the position detecting operation is set in accordance with a condition of the mobile terminal apparatus.

25. (New) A mobile terminal apparatus as claimed in claim 17 wherein:

the mobile terminal apparatus includes a table which describes a correspondence relationship between the accuracy of the position detecting operations and the information used to determine the position of the mobile terminal apparatus in accordance with the accuracy sent from the server.

26. (New) A server apparatus for providing a mobile terminal apparatus with a service with an accuracy regarding a position of the mobile terminal apparatus, comprising:

receiving unit for receiving a first signal, from the mobile terminal apparatus, including a request for a service to be provided to the mobile terminal apparatus, the server apparatus including a table which describes a correspondence relationship between a plurality of services and a set of accuracy respectively corresponding to each of services;

transmitting unit for transmitting a second signal in response to the first signal, to the mobile terminal apparatus, including an instruction to detect a position of the mobile terminal apparatus with an accuracy corresponding to the requested service,

wherein the receiving unit receives a third signal, from the mobile terminal apparatus, including an information on the position of the mobile terminal apparatus determined by the mobile terminal apparatus, and the transmitting unit transmits a fourth signal, to the mobile terminal apparatus, including another information on the requested service with the corresponding accuracy, the information on the service including the position of the terminal apparatus.

27. (New) A server apparatus as claimed in claim 26 wherein:

the accuracy of the position detecting operation of the table is described as any one of a total number of signal sources used to perform the position detecting operation, a time duration used to measure the signals transmitted from the plurality of signal sources, a total number of predicted positions to be utilized, and position calculation completion criteria; and

the predicted positions correspond to a plurality of positions which are calculated by employing the signals transmitted from the plurality of signal. sources, and are averaged and utilized so as to perform the position detecting operation based upon the plurality of predicted positions.

28. (New) A service providing method for providing plural sorts of services from a server to a mobile terminal by utilizing information on a position of the terminal, comprising:

a step, at the server, for receiving a request from the terminal for providing a service at the server and designating accuracy of a position detection of the terminal

according to the requested service, the accuracy being determined based on the requested service;

a step for transmitting an instruction from the server to the terminal for detecting a position of the terminal with the accuracy designated;

a step, at the server, for receiving the result of the detection from the terminal; and

a step for generating service information on the requested service based upon the result of the position detection, and for outputting said generated service information to the terminal, the generated and output information including the position of the terminal detected.